

WHAT IS CLAIMED IS:

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1. A liquid crystal display apparatus,
comprising:

an almost quadrilateral liquid crystal
panel having a liquid crystal display part; and

10 a plurality of first drive IC substrates
being aligned along an edge of the liquid crystal
panel and connected to the liquid crystal panel,
each of the plurality of first drive IC substrates
having a first drive IC,

15 wherein the first drive IC substrate
comprises a through wire to connect between distinct
terminals of a plurality of terminals aligned along
an edge thereof, and a test pad is formed on a
portion of the through wire.

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2. The liquid crystal display apparatus
25 as claimed in claim 1, wherein the first drive IC
substrate further comprises an input signal wire to
connect between distinct terminals of the plurality
of terminals aligned along the edge thereof, the
input signal wire being connected to an input
30 terminal of the first drive IC substrate, and a test
pad is formed on a portion of the input signal wire.

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3. The liquid crystal display apparatus
as claimed in claim 1, wherein the test pad is

formed by widening a portion of a patterned wire including a through wire or an input signal wire compared to the other portion thereof.

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4. The liquid crystal display apparatus as claimed in claim 1, wherein the liquid crystal panel comprises at least one wire to connect between through wires or input signal wires on adjacent ones of the plurality of first drive IC substrates.

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5. The liquid crystal display apparatus as claimed in claim 1, further comprising:

a plurality of second drive IC substrates being aligned along an edge orthogonal to the edge of the liquid crystal panel connected to the plurality of first drive IC substrates and connected to the liquid crystal panel, each of the plurality of second drive IC substrates comprising a second drive IC; and

a signal input substrate being connected to each of the plurality of second drive IC substrates,

wherein a signal is supplied from the signal input substrate to the first IC drive substrate via a wire formed on the signal input substrate, one of the plurality of second drive ICs and the liquid crystal panel.

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6. The liquid crystal display apparatus as claimed in claim 1, wherein for each of the plurality of first drive IC substrates, one end of the through wire is connected to an input terminal
5 formed in an outside area of a line of IC signal output terminals formed on an edge side of the first drive IC substrate, and the other end of the through wire is connected to an output terminal formed in the other outside area of the line of the IC signal
10 output terminals.

15 7. The liquid crystal display apparatus as claimed in claim 1, wherein for each of the plurality of first drive IC substrates, one end of the input signal wire is connected to an input terminal formed in an outside area of a line of IC
20 signal output terminals formed on an edge side of the first drive IC substrate, and the other end of the input signal wire is connected to an output terminal formed in the other outside area of the line of the IC signal output terminals.

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8. The liquid crystal display apparatus
30 as claimed in claim 1, wherein the liquid crystal panel is an active matrix substrate on which thin film transistors are formed and arranged in form of a matrix, and the first drive IC substrate is an insulation film substrate and connected to the
35 liquid crystal panel by using anisotropically conductive resin.

9. A liquid crystal display apparatus,
5 comprising:

an almost quadrilateral liquid crystal
panel having a liquid crystal display part; and
a plurality of first drive IC substrates
being aligned along an edge of the liquid crystal
10 panel and connected to the liquid crystal panel,
each of the plurality of first drive IC substrates
having a first drive IC,

wherein the first drive IC substrate
comprises an input signal wire to connect between
15 distinct terminals of a plurality of terminals
aligned along an edge thereof, the input signal wire
being connected to an input terminal of the first
drive IC, and a test pad is formed on a portion of
the input signal wire.

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10. The liquid crystal display apparatus
25 as claimed in claim 9, wherein the test pad is
formed by widening a portion of a patterned wire
including an input signal wire compared to the other
portion thereof.

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11. The liquid crystal display apparatus
as claimed in claim 9, wherein the liquid crystal
35 panel comprises at least one wire to connect between
input signal wires on adjacent ones of the plurality
of first drive IC substrates.

5 12. The liquid crystal display apparatus
as claimed in claim 9, further comprising:
 a plurality of second drive IC substrates
being aligned along an edge orthogonal to the edge
of the liquid crystal panel connected to the
10 plurality of first drive IC substrates and connected
to the liquid crystal panel, each of the plurality
of second drive IC substrates comprising a second
drive IC; and
 a signal input substrate being connected
15 to each of the plurality of second drive IC
substrates,
 wherein a signal is supplied from the
signal input substrate to the first IC drive
substrate via a wire formed on the signal input
20 substrate, one of the plurality of second drive ICs
and the liquid crystal panel.

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 13. The liquid crystal display apparatus
as claimed in claim 9, wherein for each of the
plurality of first drive IC substrates, one end of
the through wire is connected to an input terminal
30 formed in an outside area of a line of IC signal
output terminals formed on an edge side of the first
drive IC substrate, and the other end of the through
wire is connected to an output terminal formed in
the other outside area of the line of the IC signal
35 output terminals.

14. The liquid crystal display apparatus
as claimed in claim 9, wherein for each of the
5 plurality of first drive IC substrates, one end of
the input signal wire is connected to an input
terminal formed in an outside area of a line of IC
signal output terminals formed on an edge side of
the first drive IC substrate, and the other end of
10 the input signal wire is connected to an output
terminal formed in the other outside area of the
line of the IC signal output terminals.

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15. The liquid crystal display apparatus
as claimed in claim 9, wherein the liquid crystal
panel is an active matrix substrate on which thin
20 film transistors are formed and arranged in form of
a matrix, and the first drive IC substrate is an
insulation film substrate and connected to the
liquid crystal panel by using anisotropically
conductive resin.